

REMARKS

In the specification, the paragraphs have been amended to update information relating to the co-pending applications. A new Abstract is attached hereto on a separate page. Applicants respectfully request reconsideration and further examination of the application in view of the amendments and remarks provided herein.

Claims 1-46 were pending in this application. Claims 1-46 were rejected in the Office Action dated 05 January 2005 under 35 U.S.C. 103(a) as being unpatentable over Aronstam et al. (US 6,443,228 B1).

The Applicants submit that, contrary to the Examiner's view, the present invention represents a fundamentally different concept in downhole communication than those disclosed by Aronstam et al. and other similar known methods as already referred to in the introductory section of the specification of the present invention. The present invention departs from the teaching of Aronstam et al. and others by using the vessel as the information and not as a carrier of information. The information is "affixed" to vessel, or, in other words, the vessel of the present invention is information specific.

To draw an analogy, it is like the mailman not delivering letters but, for example, wearing a uniform indicating the message he is delivering. (To spin this analogy further one could imagine a mailman in a red uniform to be a love message from a dear one; whilst a blue uniform tells you your company has fired you ... etc). As much as this would mean a revolutionary change of the surface mail system, albeit not a very practical one, the present invention is a radical shift in the field of communication between a downhole location and the surface. All previous methods used identical vessels to carry specific information, whereas the present invention uses specific vessels to represent the information to be conveyed.

In the field of downhole communication the present invention has a number of significant advantages. The major advantage being the reduced need for a "coupling" between vessel and some external apparatus to perform a read/write access to a memory inside the vessel. Experiments have shown that to reliably enable such couplings is a very difficult (and expensive) task. The present invention reduces the interactions between the vessel and external read/write apparatus to a minimum. The complexity of the messaging system is shifted to the coding system which provides unique vessels for every different


information to be communicated and to the release mechanism that ensures that the right vessel is released in response to, for example, a downhole measurement. But it is worth noting that the release mechanism of the present invention does not have to interact with or couple to the vessels in order to convey messages to the surface.

Aronstam et al. is far from teaching or even suggesting a downhole messaging system in accordance with the present invention. Aronstam et al. teaches variations of known downhole communications techniques which all require some extended coupling for read/write access under very difficult conditions.

The examiner is invited to review the objection in the light of the above remarks. In case the phrase "signal information being affixed to the vessel" is believed to be confusing or not appropriate to claim the present invention, Applicants herewith indicate their willingness to amend the claims accordingly. However, these amendments are often more efficiently dealt with through direct communication and it is suggested that the examiner contacts the Applicant's representative, Jody Lynn DeStefanis, at (203) 431-5505 to remove any obstacle to granting as far as posed by the present wording of claim 1.

Applicants believe that no fee is due in connection with this Response; however, in the event that a fee or refund is due, the Commissioner is hereby authorized to charge any underpayment or credit any overpayment to Deposit Account No 19-0615.

Respectfully submitted,



Jody Lynn DeStefanis
Registration No. 44,653

Schlumberger Doll Research Center
36 Old Quarry Road
Ridgefield, CT 06877-4108
Phone: (203) 431-5505
Fax: (203) 431-5640